

DEQ Response to Yellowstone Club Reclaimed Wastewater Spill - March 2016

On Thursday, March 3, 2016, a storage pond spill was reported to local and state agencies.

The reclaimed water was leaking from a storage pond and unrestricted flow proceeded down the hillside into Second Yellow Mule Creek and then to the South Fork of the West Fork of the Gallatin River. The pond was empty at 4:30 a.m. on Monday, March 7, 2016.

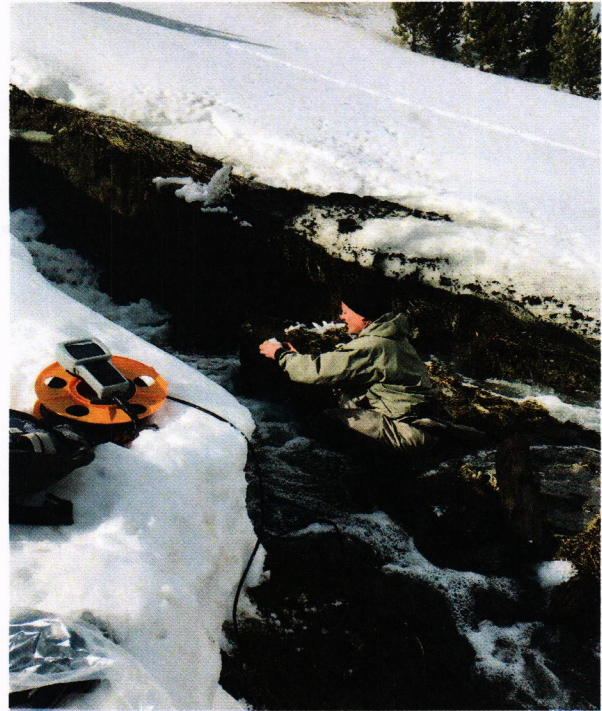
The source of the leak is a break in the outlet pipe that flows to the Yellowstone Club golf course for irrigation of the turf grass in Summer months. In the winter this is an effluent storage pond. Most of the effluent comes from the Big Sky Sewer District, with a small portion coming from the waste water treatment facility used at Yellowstone Club.

An estimated discharge of 35 million gallons has been discharged, with a small portion successfully diverted to another Yellowstone Club pond.

The spill does not pose a threat to human health

The spill is of highly treated reclaimed water and it does not threaten human health. The expected total nitrogen content of about 7-8 mg/L is below the human health standard of 10 mg/L as nitrate. Biochemical oxygen demand (BOD) is below 10 mg/L. The water is also disinfected prior to entering the storage pond.

Water quality concerns center on turbidity and sediments. Prolonged high sediment levels can be dangerous to fish and aquatic life. Initial testing shows high levels of turbidity related to this event.



DEQ Response

The DEQ is leading the response in close coordination with local authorities and other state agencies. Turbidity is high, as expected. The turbidity readings are well above the standard of an increase of 5 NTU above naturally occurring.

DEQ will be testing for E-coli on Monday with results back mid-week. Other analysis results for phosphorus, suspended sediment, ammonia, pharmaceuticals, nitrate plus nitrite, and total nitrogen will be available after the information is received from the lab during the next few weeks.

DEQ staff is also working with Yellowstone Club and consulting engineers on short and long term solutions.

DEQ is coordinating response actions with the Montana Fish, Wildlife and Parks and will take all steps necessary to ensure that the Yellowstone Club and any other responsible parties address any and all potential impacts of this spill.



For more information

If residents see dead fish or other animals they should call Montana Fish, Wildlife and Parks at 406- 247-2940 or the Wildlife Hotline at 800-259-0596.

DEQ is updating local government and the media. Local radio and television stations and newspaper web pages are covering the story. DEQ is also updating our website at:

www.deq.mt.gov

And our Facebook and Twitter feeds with up to date information on the response.

DEQ Public inquiries: 406-444-2544 (8:00 AM-4:00 PM Weekdays)



Turbidity results for Saturday and Sunday

- leaking pond discharge 3/5/16 **17 NTU** 3/6/16 **19.9 NTU**
- South Fork of the West Fork of Gallatin (Background) 3/5/16 **0.8 NTU** 3/6/16 **1.8 NTU**
- Second Yellow Mule creek 3/5/16 **1686 NTU** 3/6/16 **739.6 NTU**
- South Fork of the West Fork of Gallatin 3/5/16 **1678 NTU** 3/6/16 **1020 NTU**
- Middle Fork of the West Fork of the Gallatin (background) 3/5/16 **0.7 NTU** 3/6/16 **1.0 NTU**
- Gallatin River upstream (background) 3/5/16 **2.3 NTU** 3/6/16 **4.3 NTU**
- West Fork slightly upstream of confluence of Gallatin 3/5/16 **471 NTU** 3/6/16 **327 NTU**
- Gallatin River at Deer Creek 3/5/16 **40.9 NTU** 3/6/16 **33.1 NTU**
- Gallatin River at Lava Lake 3/5/16 **36.7 NTU** 3/6/16 **53.8 NTU**
- Gallatin River at mouth of canyon toward Bozeman 3/5/16 **20.2 NTU** 3/6/16 **22.0 NTU**